REMARKS

Claims 1-12 are pending in the present application. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 102, Anticipation: Claims 1, 3-5, 7-9, and 11-12

The examiner has rejected claims 1, 3-5, 7-9, and 11-12 under 35 U.S.C. § 102(b) as being anticipated by *Beavers et al.* (U.S. Patent No. 6,307,701) (hereinafter "*Beavers*"). This rejection is respectfully traversed.

As per the Office Action, the examiner states:

> Regarding Claim 1, *Beavers et al.* teaches a method for writing data in a tape drive, the method comprising:
>
> Allocating a blank area for transpose writing on a magnetic tape (Col. 11, L. 65 to Col. 12, L. 1, wherein it teaches that it allocates the head at the beginning of a new (i.e. blank) target track.);
>
> Writing a first plurality of data sets on the magnetic tape adjacent to the blank area, wherein the tape drive maintains full operating speed during intervals between writing successive data sets, resulting in spaces between the data sets (Col. 12, L. 1-13, wherein it teaches monitoring the speed to fall within a full operating speed by differentiating within a minimum and a maximum thresholds.);
>
> Repositioning the tape at a specified interval and writing a transposed data block to the allocated blnk area, wherein the transposed data block contains the same content as the first plurality of data sets (Col. 10, L. 38-60, wherein the data that is written is the same set of dummy tracks which are written in two differing areas of the tape drive.

Office Action dated May 31, 2005, page 2.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). The *Beavers* reference cited by the Examiner does not anticipate the present invention as recited in claim 1, because *Beavers* fails to teach each and every element of claim 1. Independent claim 1, which is representative of independent claims 5 and 9 with regard to similarly recited subject matter, reads as follows:

1. A method for writing data in a tape drive, the method comprising:
allocating a blank area for transpose writing on a magnetic tape;
writing a first plurality of data sets on the magnetic tape adjacent to the blank area, wherein the tape drive maintains full operating speed during intervals between writing successive data sets, resulting in spaces between the data sets; and
repositioning the tape at a specified interval and writing a transposed data block to the allocated blank area, wherein the transposed data block contains the same content as the first plurality of data sets.

Beavers does not teach all of the features in claim 1 above. As discussed in the Abstract, *Beavers* teaches a system for varying track recording speed to maximize host-to-tape data transfer rates. *Beavers* accommodates the variable data transfer rates of host systems and networks by continually adjusting the tape speed to match the tape drive to the host's actual transfer rate. The speed of the tape is adjusted according to the level of data present in the tape drive data buffer and whether the current mode of the drive is write mode or read mode.

In particular, *Beavers* does not teach repositioning the tape at a specified interval and writing a transposed data block to the allocated blank area, wherein the transposed data block contains the same content as the first plurality of data sets. The examiner alleges that this feature is found in the following cited section of *Beavers*:

> FIG. 11 is a flowchart of the method employed by the variable speed architecture of the tape drive while it is in write mode. According to the method, variable speed recording is begun in step 400 when the drive enters write mode. An initial tape speed is selected in step 402 based on the amount of data present in the data buffer 302. The data formatter 304 is configured in step 404 to write a predetermined number of dummy tracks before changing speed. The head timing controller 314 is configured for a speed change in step 406. The dummy tracks are poised to be written to tape via the write channel circuitry 306 in step 408. Meanwhile, head timing controller 314 monitors the position of the heads in step 410, generating speed change enable signal SPEED_CHANGE_EN in synchronization with the beginning of the phase in which the read heads are positioned over the tape. Tape speed controller 312 changes the speed of the tape to the new speed in step 412. Meanwhile, data formatter 304 is configured to write a programmable number of data tracks in step 414, which are written to tape the next time the write heads are positions over the track in step 416, followed by writing actual data tracks in step 418 containing data (formatted into data tracks) from the buffer 302.

Beavers, col. 10, lines 38-60.

The passage above teaches how the speed of the tape in *Beavers* may be varied to accommodate the data transfer rate of the host system. When the drive enters write mode, a tape speed is selected based on the amount of data in the buffer. Upon writing a number of data tracks, the tape speed controller changes the speed of the tape to a new speed while the read heads are over the track. However, prior to changing the speed of the tape, a number of dummy tracks are written at the current speed. In the next write phase, a number of dummy tracks are written followed by more data tracks at the new tape speed. Thus, the passage above merely teaches that the tape speed may be changed when writing data tracks to the tape, and that dummy tracks are written to the tape prior to the tape speed change and before more data tracks are written at the new speed. The desired tape speed is based on the maximum data transfer rate the system will support or the speed data is received from a host computer.

Although *Beavers* teaches writing dummy tracks and following the dummy tracks with actual data tracks in the passage above, *Beavers* does not mention writing a transposed data block to the allocated blank area, wherein the transposed data block contains the same content as the first plurality of data sets. To the contrary, *Beavers* teaches that the dummy tracks are merely used to ensure the reliability of the data written onto the tape. For example, **Figures 12a-12b** of *Beavers* describe the dummy tracks in further detail. **Figure 12a** illustrates a number of data track pairs written to the tape when the tape speed is decelerated, and **Figure 12b** illustrates a number of data track pairs written to the tape when the tape speed is accelerated, as shown below:

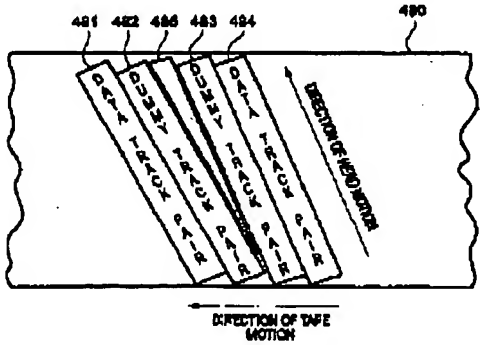

FIG. 12A

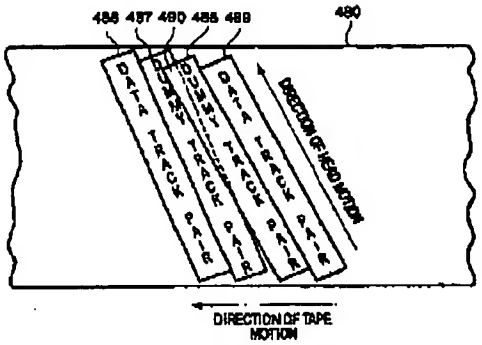

FIG. 12B

These figures each illustrate two write head phases, the first phase which writes a data track pair (e.g., 481 in Fig. 12a; 486 in Fig. 12b; etc.) to the tape, and the second phase which writes another data track pair (e.g., 484 in Fig. 12a; 489 in Fig. 12b; etc.) to the tape. In **Figure 12a**, a "residue" zone 485 is created when the dummy track 483 and second data track 484 are written following the data track 481 and dummy track 482. The residue zone does not affect the reliability of any data written onto the tape, since data track 481 and data track 484 do not overlap. Likewise, in **Figure 12b**, an "overlap" zone 490 is created when the dummy track 486 and second data track 489 are written following the data track 486 and dummy track 487. The overlap zone does not affect the reliability of any data written onto the tape, since the overlap zone occurs only between dummy tracks 487 and 488. Thus, *Beavers* employs dummy tracks to ensure that a next write head phase will not affect the reliability of actual data written onto the tape, as any overlap in the write will occur in the dummy tracks.

In contrast, claim 1 of the present invention writes a transposed data block to an allocated blank area, wherein the transposed data block contains the same content as the first plurality of data sets. The transposed data block is written by first allocating a blank area of the tape, writing actual data on the tape in an area adjacent to the allocated blank area, and then writing the data block contained in the actual data area to the allocated blank area. *Beavers* does not teach allocating a blank area and then writing the actual data on the tape that is adjacent to a blank area to the blank area, nor does *Beavers* mention the desirability of such a feature. Rather, *Beavers* merely teaches using dummy

tracks to prevent data overlap, rather than allocating a blank area of the tape and then writing a data block on the tape to the allocated blank area. No data is ever written to the dummy track areas that are adjacent to the actual data tracks. Consequently, *Beavers* fails to teach all of the features in claim 1 of the present invention.

In view of the above, *Beavers* does not teach the features of claims 1, 5, and 9. At least by virtue of their dependency on claims 1, 5, and 9, respectively, *Beavers* also does not teach the features of dependent claims 2-4, 6-8, and 10-12.

Furthermore, *Beavers* does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. Absent the examiner pointing out some teaching or incentive to implement *Beavers* and allocating a blank area of the tape, writing actual data on the tape in an area adjacent to the allocated blank area, and then writing the data contained in the actual data area to the allocated blank area, one of ordinary skill in the art would not be led to modify *Beavers* to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify *Beavers* in this manner, the presently claimed invention can be reached only through an improper use of hindsight using the applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

Therefore, the rejection of claims 1, 3-5, 7-9, and 11-12 under 35 U.S.C. § 102(b) has been overcome.

II. 35 U.S.C. § 103, Obviousness, Claims 2, 6, and 10

The examiner has rejected claims 2, 6, and 10 under 35 U.S.C. § 103(a) as being unpatentable over *Beavers* in view of *Dobbek et al.* (U.S. Patent No 6, 034, 831) (hereinafter "*Dobbek*") This rejection is respectfully traversed.

Claims 2, 6, and 10 are dependent claims dependent from independent claims 1, 5, and 9, respectively. The combination of *Beavers* and *Dobbek* do not teach or suggest the present invention as recited in claims 2, 6, and 10. As argued in the response to the rejection of claim 1 above, the features relied upon as being taught in the *Beavers* reference are not taught or suggested by that reference. As a result, a combination of the *Beavers* and *Dobbek* references still would not reach the claimed invention in claims 2, 6, and 10.

Therefore, the rejection of claims 2, 6, and 10 under 35 U.S.C. § 103(a) has been overcome.

III. Conclusion

It is respectfully urged that the subject application is patentable over the cited references and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: 8/25/05

Respectfully submitted,

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